

CLAIMS

What is claimed is:

1. A polyethylene composition comprising:
 - (a) a first polyethylene having a melt index of 0.1 to 3.0 g/10 min and a density of from 0.905 to 0.938 g/cm³; and
 - (b) a second polyethylene having a melt index of 10 to 500 g/10 min and a density of 0.945 to 0.975 g/cm³,wherein the composition has a density of from 0.920 to 0.973 g/cm³ and a melt index of 2 to 200 g/10 min, and wherein the density of the second polyethylene is from 0.037 to 0.062 g/cm³ greater than the density of the first polyethylene.
2. The composition of claim 1, wherein at least one of the first and second polyethylenes is a metallocene-catalyzed polyethylene.
3. The composition of claim 1, wherein the first and second polyethylenes are metallocene-catalyzed polyethylenes.
4. The composition of claim 2, wherein the metallocene catalyzed polyethylene has an Mw/Mn ratio of from 1.4 to 4.0.
5. The composition of claim 1, wherein the first polyethylene is a metallocene-catalyzed polyethylene having an Mw/Mn ratio of from 1.4 to 4.0.
6. The composition of claim 1, wherein the first polyethylene has a density of from 0.910 to 0.935 g/cm³.
7. The composition of claim 1, wherein the second polyethylene has a density of from 0.950 to 0.972 g/cm³.

8. The composition of claim 1, wherein the second polyethylene has a density of from 0.955 to 0.970 g/cm³.
9. The composition of claim 1, wherein the composition has a density of from 0.930 to 0.970 g/cm³.
10. The composition of claim 1, wherein the composition has a density of from 0.940 to 0.965 g/cm³.
11. The composition of claim 1, wherein the composition has a density of from 0.950 to 0.960 g/cm³.
12. The composition of claim 1, wherein the density of the second polyethylene is from 0.038 to 0.060 g/cm³ greater than the density of the first polyethylene.
13. The composition of claim 1, wherein the composition has a melt index I_{2,16} of from 4 to 30 g/10 min.
14. The composition of claim 1, wherein the blend comprises 80% to 20% by weight of the first polyethylene and 20% to 80% by weight of the second polyethylene, based on the total weight of the first and second polyethylenes.
15. The composition of claim 1, wherein the blend comprises 70% to 30% by weight of the first polyethylene and 30% to 70% by weight of the second polyethylene, based on the total weight of the first and second polyethylenes.
16. The composition of claim 1, wherein the blend comprises 60% to 40% by weight of the first polyethylene and 40% to 60% by weight of the second

polyethylene, based on the total weight of the first and second polyethylenes.

17. The composition of claim 1, wherein the blend consists essentially of the first and second polyethylenes.
18. The composition of claim 1, wherein at least one of the first and second polyethylenes comprises a blend of two or more polyethylene resins.
19. An injection molded article comprising a polyethylene composition, the polyethylene composition comprising:
 - (a) a first polyethylene having a melt index of 0.1 to 3.0 g/10 min and a density of from 0.905 to 0.938 g/cm³; and
 - (b) a second polyethylene having a melt index of 10 to 500 g/10 min and a density of 0.945 to 0.975 g/cm³,wherein the composition has a density of from 0.920 to 0.973 g/cm³ and a melt index of 2 to 200 g/10 min, and wherein the density of the second polyethylene is from 0.037 to 0.062 g/cm³ greater than the density of the first polyethylene.
20. The injection molded article of claim 19, wherein at least one of the first and second polyethylenes is a metallocene-catalyzed polyethylene.
21. The injection article of claim 19, wherein the first and second polyethylenes are metallocene-catalyzed polyethylenes.
22. The injection molded article of claim 20, wherein the metallocene catalyzed polyethylene has an Mw/Mn ratio of from 1.4 to 4.0.
23. The injection molded article of claim 1, wherein the first polyethylene is a metallocene-catalyzed polyethylene having an Mw/Mn ratio of from 1.4 to 4.0.

24. The injection molded article of claim 19, wherein the first polyethylene has a density of from 0.910 to 0.935 g/cm³.
25. The injection molded article of claim 19, wherein the second polyethylene has a density of from 0.950 to 0.972 g/cm³.
26. The injection molded article of claim 19, wherein the second polyethylene has a density of from 0.955 to 0.970 g/cm³.
27. The injection molded article of claim 19, wherein the composition has a density of from 0.930 to 0.970 g/cm³.
28. The injection molded article of claim 19, wherein the composition has a density of from 0.940 to 0.965 g/cm³.
29. The injection molded article of claim 19, wherein the composition has a density of from 0.950 to 0.960 g/cm³.
30. The injection molded article of claim 19, wherein the density of the second polyethylene is from 0.038 to 0.060 g/cm³ greater than the density of the first polyethylene.
31. The injection molded article of claim 19, wherein the composition has a melt index $I_{2,16}$ of from 4 to 30 g/10 min.
32. The injection molded article of claim 19, wherein the blend comprises 80% to 20% by weight of the first polyethylene and 20% to 80% by weight of the second polyethylene, based on the total weight of the first and second polyethylenes.

33. The injection molded article of claim 19, wherein the blend comprises 70% to 30% by weight of the first polyethylene and 30% to 70% by weight of the second polyethylene, based on the total weight of the first and second polyethylenes.
34. The injection molded article of claim 19, wherein the blend comprises 60% to 40% by weight of the first polyethylene and 40% to 60% by weight of the second polyethylene, based on the total weight of the first and second polyethylenes.
35. The injection molded article of claim 19, wherein the blend consists essentially of the first and second polyethylenes.
36. The injection molded article of claim 19, wherein at least one of the first and second polyethylenes comprises a blend of two or more polyethylene resins.
37. A process for forming an injection molded article, the process comprising:
 - (a) providing a polyethylene composition comprising
 - (i) a first polyethylene having a melt index of 0.1 to 3.0 g/10 min and a density of from 0.905 to 0.938 g/cm³; and
 - (ii) a second polyethylene having a melt index of 10 to 500 g/10 min and a density of 0.945 to 0.975 g/cm³,wherein the composition has a density of from 0.920 to 0.973 g/cm³ and a melt index of 2 to 200 g/10 min, and wherein the density of the second polyethylene is from 0.037 to 0.062 g/cm³ greater than the density of the first polyethylene; and
 - (b) injection molding the polyethylene composition to form an injection molded article.